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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/511,714

10/15/2004

Bong Kil Han

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NORRIS, MCLAUGHLIN & MARCUS, P.A.
875 THIRD AVE
18TH FLOOR
NEW YORK, NY 10022

EXAMINER

HERRING, BRENT W

ART UNIT

PAPER NUMBER

4112

MAIL DATE

DELIVERY MODE

12/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/511,714	Applicant(s) HAN, BONG KIL	
	Examiner BRENT W. HERRING	Art Unit 4112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/13/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 29. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The abstract of the disclosure is objected to because the sheet presenting the abstract may not include other parts of the application or other material.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 rejected under 35 U.S.C. 103(a) as being unpatentable over Sheu et al., U.S. Patent 6,266,938 and further in view of Petter, U.S. Patent 2,345,500.

Regarding claim 1:

Sheu et al. teaches a method for *constructing a high rise building having a core and a residence space around the core*, the method comprising the steps of:

(b) connecting a girder (1, see Figs. 2-4) to a steel-frame pillar (see Fig. 2), the girder includes an anchor-connecting member (collaboration of parts 10, 120, 121, see Fig. 6 form an anchor-connecting member) to which a steel-frame beam (4, 20, both constitute steel-frame beams) is connected, a portion of the anchor-connecting member (10, 120, 121) being buried in a core wall (see Fig. 6, col. 4, lines 10-14); (c) assembling the steel-frame beam (20) on the anchor-connecting member (10, 120, 121, see Figs. 3, 4, 6 8); (d) arranging reinforcing bars (51, see Fig. 2) in a deck plate (7, see Figs. 2 and 6) or a slab type mold installed on the steel-frame beam (20, see Fig. 6), and in the core wall (see Fig. 6); and (e) applying a slab concrete and a core concrete simultaneously or in this order (see

Fig. 6). Sheu et al. does not expressly disclose the step of (a) installing a steel-frame pillar on a shaft portion of the core. Petter discloses installing a steel-frame pillar (13, see Fig. 3) on a shaft portion of the core (15). Petter and Sheu et al. are analogous art because they are from the same field of steel floor structures. At the time of the invention, it would have been obvious to install the steel-frame pillars of Sheu et al. on the shaft portion of the core of Petter. The motivation to combine would have been to support the roof structure (column 1, lines 5-8 of Petter).

Regarding claim 2:

Sheu et al. teaches the method of claim 1, and Sheu et al. further teaches wherein plural sub-connecting members (3, see Figs. 2, 3, 6 and 7) *for supporting the deck plate or the slab type mold* are installed on the girder (1, see Fig. 3) installed between the steel-frame pillars (four vertically positioned "I" beams, see Fig. 2), the sub-connecting members (3) including a connecting member (121, see Fig. 6 and 8) coupled to the girder (1) and a supporting member (3 having hole 30, see Fig. 7) coupled to one end of the connecting member (121, see Fig. 6).

Regarding claim 3:

Sheu et al. teaches the method of claim 1 wherein the anchor-connecting member (10, 120, 121) comprises a connecting member (10 in contact with 1, see Figs. 3, 6) connected to the girder by welding or bolts (1, column 2, lines 30-33), an anchor plate (121) connected to the connecting member (10) by welding

or bolts (see Figs. 3, 6, 8), a gusset plate (120) attached to the anchor plate (121), and a stud or shear connector (6) extended from the anchor plate (121) to the concrete wall and buried in the concrete (see Fig. 6). Sheu et al. does not teach wherein the gusset plate is attached to the anchor plate by welding. Examiner takes official notice that it is old and well known to use welding for attachment of metal parts. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have replaced bolts in the prior art of Sheu et al. with welding to connect the gusset plate and anchor plate.

Regarding claim 4:

Sheu et al. teaches the method of claim 1 wherein the step (c) further comprises the steps of forming a slot hole (100) on the anchor-connecting member (10, 120, 121, see Figs. 3, 6, 8) and coupling a high tensioned bolt (N) in the slot hole (100) to be assembled on the steel-frame beam (20).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENT W. HERRING whose telephone number is (571)270-3661. The examiner can normally be reached on M-Th 7:30am - 5:00pm and alt. F 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David V. Bruce can be reached on 571-272-2487. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BWH/

bwh

/David V Bruce/

Supervisory Patent Examiner, Art Unit 4112